



## Quick Reference Guide:

# Connectors for Mobile Devices

Tyco Electronics supplies a unique expertise for today's and tomorrow's mobile equipment applications, including cellular phones, mobile media players, digital camera's, GPS, payment terminals, sports equipment and other portable electronics.

We also provide analyses and simulation services to allow OEM's to predict system performance, resulting in faster design cycles and lower costs. In addition our early involvement programs allow us to design next generation products to support equipment requiring more speed, higher density and lower cost.

Our wide product portfolio for mobile equipment ranges from a variety of connectors to antennas, circuit protection, cable assemblies and others. This brochure focuses on our connectors.

In addition to our products, Tyco Electronics offers a set of technologies, especially developed to offer low applied cost products to our customers. Dedicated Mobile Equipment engineering teams provide you the best service from persons understanding the way you run your business.

The teams are dedicated to your success and located in several regions of the world. Our facilities are fully equipped with all necessary services such as quick turn sample shop, simulation equipment, test laboratories and others.





Our preferred part offering is broad and reflected in this document.

## I/O CONNECTORS

### Micro USB connectors

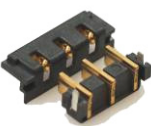

	Type	Mount type	Dimensions [mm]	P/N	Description	Status
	A	Plug	N/A	1939053-1	Micro USB plug A-type	MP QD
	B	Plug	N/A	1939054-1	Micro USB plug B-type	MP QD
	AB	Standard	7.5 x 5.00 x 2.51	1981584-1	Micro USB standard Rec AB	MP QD
	B	Standard	7.5 x 5.00 x 2.51	1981568-1	Micro USB standard Rec B	MP QD
	B	Dip type	7.5 x 5.00 x 2.51	2069746-1	Micro USB 2 dip short	MP QD
	B	Dip type	7.5 x 5.00 x 2.51	2013499-1	Micro USB 2 dip	MP QD
	AB	Mid Mount	7.5 x 5.00 x 2.51	TBA	Micro USB mid mount Rec AB-type	D
	B	Mid Mount	7.52 x 6.5 x 2.48 (1.5)	2040343-2	Micro USB mid mount Rec B-type	MP QD
	B	Reversed Mid mount	7.52 x 6.5 x 2.48	1554266-1	Micro USB Rec Reversed Mid Mount	MP QD
	AB	STD type ESD	7.5 x 5.29 x 2.51	1554745-1	Micro USB + ESD protection AB-type	I
	B	STD type ES	7.5 x 5.29 x 2.51	1554744-1	Micro USB + ESD protection B-type	I
	AB	Waterproof micro USB	5.29 x 7.5 x 2.51	TBA	Micro USB IP 67 receptacle type AB	D
	B	Waterproof micro USB	5.29 x 7.5 x 2.51	TBA	Micro USB IP 67 receptacle type B	D
	B	5 + 12p Std	7.5 x 8.6 x 2.48	TBA	5 + 12p Micro USB Hybrid connector type B	D

## Circular I/O connectors

	Type	Application	Barrel diameter [mm]	Dimensions [mm]	P/N	Description	Status
	A/V + DC Jack + Flash	SMD	2.0	7.5 x 7.5 x 2.95	1551398-1	Combination of DC jack, A/V and Flash port	MP GD
	A/V jack	SMD	3.5	11.2 x 5.85 x 3.3	1551519-1	3.5mm Audio jack SMD	I
	A/V jack	Compressive	3.5	13.4 x 6.0 x 4.75	1551586-1	3.5mm Audio jack compressive	D
	DC jack	Compressive	2.0	6.8 x 3.8 x 3.55	1551657-1	2.0mm DC jack compressive type	D

## BATTERY CONNECTORS

### 2 piece battery connectors

	Rec or plug	Positions	Pitch [mm]	Dimensions [mm]	P/N	Description	Status
	Rec	3	3.4	13.2 x 3.9 x 3.1	2013797-1	Floating battery interconnection system receptacle (battery side)	MP SH
	Plug	3	3.4	10.3 x 5.1 x 3.0	2013895-1	Floating battery interconnection system plug (phone side)	MP SH
	Rec	3	1.8	5.7 x 7.0 x 4.55	1554442-1	Wire to board battery interconnection system	MP GD
	Plug	3	1.8		X-1554443-X	Wire to board battery interconnection system	MP GD


## SIM CONNECTORS

### SIM connectors

	Type	Height range	Dimensions [mm]	P/N	Description	Status
	5D block	1.5 - 2.7	10 x 7.6 x height	*-1705300-* *-1551295-*	5-Directional SIM connector 5-D SIM economic version	MP QD
	Sliding	1.8 - 5.0	15.5 x 10 x height	*-2042647-* *-2042920-*	Scalable Shielded SIM	MP SH
	Sliding	1.8 - 5.0	15.5 x 10 x height	*-1551663-*	Narrow shield version	C
	Sliding	1.43	17.5 x 16.3 x 1.43	1981898-1	Super low profile SIM	MP SH
	Sliding	2.4 - 3.1	15.7 x 16.4 x height	*-292292-*	SIM card connector, sliding	MP SH
	Push Push	1.87	18.9 x 23.7 x 1.87	1981959-1	Push Push SIM connector	MP SH
	Sliding	2.05 MAX	26.3 x 14.7 x 2.05	2069248-1	Side entry SIM connector	MP SH
	Sliding	1.8 - 5.0	12.5 x x 10.0 x height	TBA	Scalable shielded micro SIM	C
	Sliding	1.5	15.4 x 10.0 x 1.5	TBA	SIM 1.5mm	C




## CAMERA SOCKETS

### SMIA Camera Sockets


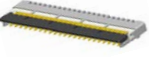

	Type	Camera [mm]	Dimensions [mm]	P/N	Description	Status
	SMIA 85	8.5 x 8.5	10.3 x 10.0 x 5.03	1857346-1	Onboard SMIA 85 Camera socket	MP QD

## INTERNAL CONNECTORS



### Board to Board connectors

	Rec or plug	Pos	Pitch	Height	Dimensions [mm]	P/N	Description	Status
	Plug	10 - 80	0.4	1.5	2.66 x 4.05 (10p)	*-1871275-*	0.4mm pitch stacking connector	MP
	Rec	10 - 80	0.4	1.5	2.7 x 4.1 (10p)	*-1871274-*	0.4mm pitch stacking connector	MP
	Plug	10 - 80	0.4	1.0	2.66 x 4.05 (10p)	*-1871566-*	0.4mm pitch stacking connector	MP
	Rec	10 - 80	0.4	1.0	2.7 x 4.1 (10p)	*-1747769-*	0.4mm pitch stacking connector	MP
	Plug	6 - 80	0.35	0.8	3.2 x 2.0 (10p)	*-2069796-*	0.35mm pitch stacking connector plug narrow version	D
	Rec	6 - 80	0.35	0.8	4.15 x 2.4 (10p)	*-2069797-*	0.35mm pitch stacking connector rec narrow version	D
	Plug	6 - 80	0.4	0.8	3.4 x 2.0 (10p)	*-2069920-*	0.4mm pitch stacking connector plug narrow version	D
	Rec	6 - 80	0.4	0.8	4.35 x 2.4 (10p)	*-2069921-*	0.4mm pitch stacking connector rec narrow version	D


### FPC connectors

	Type	Pos	Pitch	height	Dimensions [mm]	P/N	Description	Status
	Standard	11 - 57	0.3	1.0	3.8 x 14.4 (39p)	*-1746237-*	0.3 FPC standard type Front Flip lock	MP
	Narrow Front flip	11 - 57	0.3	0.9	3.2 x 13 (39p)	*-1827827-*	0.3 FPC narrow type Front Flip lock	MP
	Narrow Back flip	11 - 57	0.3	1.0	2.75 x 13 (39p)	*-1827674-*	0.3 FPC narrow type Back Flip lock	MP
	Shielded	45	0.3	0.75	TBA	*-1554656-*	SHIELDED 0.3 FPC low 0.9mm height Front Flip Lock	D
	Narrow Front flip	33	0.2	0.9	3.0 x 8.0	1-2069661-0	0.2 FPC narrow Front flip FPC lock	D
	Narrow Back flip	33	0.2	1.1	2.9 x 8.5	1-2040219-0	0.2 FPC narrow Back flip FPC lock	D



## One piece Board to board connectors

	Pitch	Pos	Working height	Height	Dimensions [mm]	P/N	Description	Status
	0.7	10	0.9	0.85	6.25 x 11.25	1551246-1	10p double row Board to Board connector compressive style	MP SH
	2.0	8	0.7	0.4	5.20 x 17.20	1551120-2	8p Board to Board connector compressive style	MP SH


## Wire to Board connectors

	Pitch	Pos	Wire size	Height	Dimensions [mm]	P/N	Description	Status
	0.8	2	AWG 32	1.4	2.85 x 4.4	1981813-1	Micro SLP connector pair. Cable connector should be requested as a cable assembly at Tyco Electronics	MP GD

## Spring Fingers



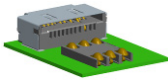

	Type	Uncompressed height	Width	Effective height	P/N	Description	Status
	Y	0.8	2.0	0.3-0.5	1447009-5	Spring finger 0820	MP JP
	Box	1.7	2.0	0.8-1.3	1746136-1	Shield Finger 1720	MP JP
	Box	4	2.5	2.0-3.2	1734303-1	Shield Finger 4025	MP
	cage	1.2	0.95	0.65-1.1	1551631-4	Shield Finger 1295	I SH
	cage	1.5	1.1	0.95-1.3	1565158-1	Shield Finger 1511	MP JP
	cage	1.6	0.75	1.1-1.4	1565322-1	Shield Finger 1675	MP JP
	cage	1.8	0.95	1.0-1.6	1857724-4	Shield Finger 1895	MP QD
	cage	1.8	0.95	1.0-1.6	1551281-4	Shield Finger 1810	MP SH
	cage	1.8	0.95	1.0-1.6	1551401-4	Shield Finger 1810	MP SH
	cage	1.99	1.4	1.0-1.8	2040761-1	Shield Finger 2014	MP QD
	cage	2.15	1.15	1.3-1.9	1551573-4	Shield Finger 2212	I SH
	cage	2.4	1.1	1.4-2.2	1746854-1	Shield Finger 2411	MP JP
	cage	3	1.4	1.8-2.8	1827625-1	Shield Finger 3014	MP JP

## Spring Probe Connectors

	Type	Pos	Body height	Pitch	Effective height	P/N	Description	Status
	SMD	1	2.2	-	2.45	2042114-1	Spring probe H=2.2mm SMD EIA	MP LU
	Floating	1	2.2	-	2.33	TBA	Spring probe H=2.2mm floating	MP LU
	SMD	2	2.5	3.5	2.9	1551485-1	Spring probe 2p 3.5mm pitch EIA	MP LU
	SMD	2	2.5	2.5	3.00	1982484-1	Spring probe 2p 2mm pitch EIA	MP LU


## MEMORY CARD CONNECTORS

### Micro SD card readers

	Switch?	Push Push?	Dimensions [mm]	P/N	Description	Status
	Y	Y	14.6 x 15.3 x 1.73	1871602-1	Micro SD connector	MP GD
	Y	Y	19.7 x 17.3 x 2.8	368637-3	Micro SD / SIM Combi Connector	MP GD
	Y	N	11.3 x 5.45 x 4.25 (H=2.9 – 5.0)	1932311-1	Micro SD connector, block type with detection switch	MP GD
	Y	Y	13.75 x 16.3 x 1.43	1554304-1	Micro SD economic version	MP GD

## RF CONNECTORS

### Switching coax

	Self Alignment [mm]	Impedance	Dimensions [mm]	P/N	Description	Status
	0.5	50Ω	2.0 x 2.0 x 0.9	1551372-1	Pico Switching coax	MP JP

D: Development, I: Introduction, MP: Mass production, SH: Shanghai (PRC), QD: Qingdao (PRC), GD: Guangdong (PRC), JP: Japan, LU : Switzerland



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